THE IHS PRIMARY CARE PROVIDER

A journal for health professionals working with American Indians and Alaska Natives

August 2007 **Volume 32 Number 8**

Shiprock Service Unit's Methods for Adoption of an Evidence-Based Nursing Model

Mary Elkins, MPH, MS, RN, Captain, USPHS, Infection Control Practitioner; Lavenia Diswood, BSN, RN, MSN, University of Phoenix On-Line Graduate Student, Chief Nurse Executive; Loyce Phoenix, MPH, MS, RN, Captain USPHS, Public Health Nurse; David Hodgins, MSN, RN, Professional Quality Services Director; Doug Accountius, MBA, BSN, RN, Staff Development Director; and Reue Verbus, BSN, RN, Emergency Department Supervisor; all from the Northern Navajo Medical Center, Shiprock, New Mexico

The Shiprock Service Unit Nursing Department, under the direction of Lavenia Diswood, Chief Nurse Executive (CNE), is developing a strategy for adoption of an evidence-based practice nursing model. This is part of our vision to become a magnet status hospital, a lofty goal supported by the Indian Health Service (IHS). Magnet status is a designation given to a hospital by the American Nurses' Credentialing Center (ANCC), an American Nurses Association affiliate, when the hospital is able to show evidence for meeting certain quality measures in their nursing department and patient care. This is a discussion of Shiprock's methods towards adoption of an evidence-based nursing model.

Evidence-Based Practice (EBP)

EBP is an essential skill that has been shown to increase positive health care outcomes and may bridge the gap between research and actual practice.[1] According to evidence from a published meta analysis, patients who receive research-based nursing interventions can expect 28% better outcomes than the 72% of the patients who receive standard nursing care.[2] Methods of EBP include addressing the strength and quality of evidence from systematic reviews, randomized control trials, controlled studies, case-control and cohort studies, qualitative systematic reviews, single qualitative study, and expert opinion.[1] EBP also requires evaluation of professional expertise, patient values, culture, and preferences prior to utilization.

National Institutes of Health (NIH) Training

Indian Health Service nursing leadership in Rockville, Maryland, in partnership with the NIH, provided Navajo IHS nurses beginning EBP training to address the gap between research and practice. The two-day workshop was open to all Navajo Area nursing departments and hosted by Shiprock Service Unit. Shiprock's Chief Executive Officer was there to voice his support of an evidence-based nursing model as a complement to the medical side for continued promotion of safe and quality evidenced-based health care.

Workshop participants from Shiprock included 28 permanent nursing staff with varied education and licensure

In this Issue…

226 Shiprock Service Unit's Methods for Adoption of an Evidence-Based Nursing Model

232 MRSA in American Indians and Alaska Natives

234 New Federal Prescription Drug Disposal Guidelines

235 IHS Child Health Notes

237 OB/GYN Chief Clinical Consultant's Corner Digest

246 Postgraduate Course on Obstetric, Neonatal and Gynecologic Care

247 Pathways Into Health

247 Electronic Subscription Available

248 Meetings of Interest

249 Position Vacancies

backgrounds including licensed practical nurses, associate degree, baccalaureate of science, and masters in nursing, business administration, and public health. Range of experience was a few to over 30 years and included a wide range of clinical backgrounds from pediatrics to intensive care nursing. The cultural mix included Apache, Hopi, Navajo, San Juan Pueblo, Sioux, and Anglo. Nurses were provided time to attend in order to get a number of floor duty staff involved with the initial concept explanation.

PICO Development

One session covered EBP methods using "PICO," a process nurses use to focus a clinical issue that may emerge during the workday. It is based on Melnyk and Fineout-Overholt's book *Evidence-Based Practice in Nursing and Healthcare: A Guide to Best Practice.* PICO begins with the nurse identifying one or more clinical questions. The questions are then written into "PICO" format: **P** = the problem or disease in question; **I** = the proposed intervention; **C** = the current status quo or standard for comparison; and **O** = the outcome of the intervention. Current literature is reviewed. Results are analyzed by the staff as to validity (bias, unaccounted for variables, etc), reliability (sample size, confidence intervals, etc.), and applicability (cultural appropriateness, feasibility, etc). Findings may lead to a practice change, development of a protocol, or a new policy.

At the closing session, NIH challenged us to identify one "thing" we would do to promote EBP. One objective of the EBP training was to gain a basic understanding of EBP, so this was identified as one definite "thing" to do. Other points discussed were barriers and positive points. Barriers included the need for the library icons to be placed on the computers for staff to have easy access to research links, how to overcome the idea of "another project to do," problems associated with projects being proposed but never completed, nurses not seeing any usefulness or positive relationship for EBP, and time for involvement in the process for floor staff. Positive points were staff members could become trainers for other staff and would have a way to solve some of the many clinical problems encountered in the workplace. Since the groups' recurring theme was "we do not finish what we start," another "thing" was to study best methods for adoption of a sustainable evidence-based nursing practice.

Diffusion Theory

Using Everett Roger's diffusion of innovations theory as the theoretical framework and EBP methodology, a strategic plan was developed for EBP implementation. Our "one thing to promote EBP" was written as a PICO question: "For Shiprock nurses, will the application of Roger's theory, diffusion of innovations, prove more useful for a systems approach to adoption of EBP than Shiprock's current methods of communication and education?" Key words used in the literature review were evidence-based practice and nursing, diffusion of innovations, and organizational infrastructure.

Diffusion of innovations includes a five-stage process that maximizes the exposure of an innovation within an organization.[3] Innovation is defined as "an idea, object, or practice perceived as new to the individual or the organization."[3] Processes for diffusion are innovation development, dissemination, adoption, implementation, and maintenance.[4] EBP is our new "innovation" that we want "diffused." Innovation development is our strategic plan for EBP. Dissemination involves our plans for communicating EBP. Adoption requires the nurse being aware of EBP, how to practice EBP in their nursing routine, and having a good understanding of what EBP involves. Implementation is the "initial use" of the program, and maintenance is the "ongoing implementation" of the innovation.[3] Our goal is EBP sustainability, which includes effective maintenance and institutionalization of EBP that becomes the norm or routine for nursing practice.[3]

According to Rogers, programs fail because of one incorrect assumption: "after any new innovation has been implemented, the staff will adopt the program and further application of the program will automatically occur by all staff."[4] To help prevent failure, an analysis of the nursing system using Rogers's "attributes of key determinants" was used to predict speed and extent of EBP diffusion throughout our system.[3] We found five relevant determinates: "complexibility" (is the use of EBP easy?), "compatibility" (does EBP fit well with the nurses?), "communicability" (is EBP easily understood?), "time" and "commitment."[3]

A key concept of diffusion theory is that staff will not adopt any innovation without awareness and knowledge that the innovation exists. Therefore, it was critical to apply proven principles of effective marketing in the strategic plan. Initial strategic planning sessions included identifying EBP methods that staff felt may be useful, easy to use, easy to understand, and requiring little commitment and time. Also included were "must do" EBP habits identified by NIH: "question the norm," "challenge the way we've always done it," "learn to ask for the evidence," "learn to speak data," "depend on high quality resources," "see one, do one, teach one." Social change concepts were reviewed to support staff adoption of EBP process using Glanz, Rimer and Lewis's textbook, *Health Behavior and Health Education, Theory, Research and Practice*.[5]

Measure for Success

Throughout this planning, 20% (number of nurses involved divided by the total number of nurses that were targeted to be involved in the activity) was used as a measure for the number we wanted to be involved in any project. Our ultimate goal is to reach a "tipping point" measure. According to Malcolm Gladwell, the "tipping point" is the point at which an idea, behavior, or action, etc. crosses an invisible threshold and spreads through the organization or population.[6]

Adoption of an innovation can be plotted on a normal, bell-shaped distribution using Roger's identified categories of

the adopters: "innovators," "early adopters," "early majority adopters," "late majority adopters," and "laggards."[3] Innovators are within three standard deviations (SD) from the mean, early adopters and laggards are within two SD, and early majority and late majority adopters are within one SD. Our "innovators" are the initial strategic planners routinely using EBP in their work. "Early adopters" are those familiar with EBP and routinely using these methods. Approximately 7.6% (10/132) is our current estimated number of nurses' routinely practicing EBP methodology (key words being "routinely practicing"). Theoretically, 17 additional nurses of the total nursing department (12.9 %, or 17/132) need to adopt and routinely use EBP as part of their practice to bring us to the elusive "tipping point" to effect EBP institutionalization.

Strategy

A strategy to assess commitment involved having the NIH trained group do a literature review on EBP with suggested use of the key words, "barriers for implementation." Thirty-eight percent (11/28) of the group completed the literature review. The intent was to show how difficult or easy it is to do a literature review so that the group could assist their staff when attempting a review for the first time. Their commitment to this project helped to identify some significant barriers for the staff nurse: time for the nurses to complete the EBP process, ability to do a literature review, and availability of the required technology.

Our marketing plan was presented to our Nurse Executive Team (NET). Simple marketing tools based on "knowledge" from Bloom's taxonomy[7] incorporated use of "events, diagrams, videos, and required behaviors of asking, matching, discovering, and listening in face-to-face communication." Also incorporated were relevant cultural issues and gaps between implementation, full adoption, and effective utilization of EBP as the norm for nursing practice. Dates were established for a kickoff event to publicize EBP. Other action items planned at the NET meeting included the placement of an icon on the Northern Navajo Medical Center (NNMC) website home page for staff to have easier access to find the NIH library site and the Clinical Informationist for the Indian Health Service. Access to a library and those services is critical for effective EBP.[8] We also were able to provide all nurses with the EBP primers (study tools explaining the EBP process) developed by NIH by placing them on the NNMC website home page and by sending out hard copies. These projects were completed.

An EBP kick-off day trial run held on the Medical-Surgical unit had 90.9% (10/11) nurses participating. On the next day, the second presentation was held that was the official kick-off for the entire hospital. More than 50 nurses attended, which was 43% (58/132) of the nursing staff. It turned out to be a very special day for all nurses that attended and was catered and paid for by the sponsor nurse. Kick-off presenters included staff and nurses from the Medical-Surgical unit, nurses from Ambulatory and Maternal Child Health clinics, the Infection Control Practitioner, the CNE as the key note speaker, and several nurse managers discussing some of the EBP processes. A fishbowl filled with the Medical-Surgical Unit's written PICO questions were available for review. Badges were worn that NIH had given us with the words "one bite at a time."

Barriers

The BARRIERS Questionnaire by Sandra Funk from University of North Carolina was used as a performance improvement tool to determine what barriers our nurses thought would hinder their ability to use EBP.[9] Questionnaires were sent to all nurses. Results identified perceptions of the main barriers to adopting EBP as routine practice. Forty-two percent (56/132) of the nursing staff returned a questionnaire. Of the fifty-six returned questionnaires, five were unusable: two were incomplete and three had no opinion. Total usable questionnaires were fifty-one. Of the fifty-one, 52.9% (27/51) identified the characteristics of the organization as the main barrier. The three most frequently identified barriers were "administration will not allow the implementation" followed by "there is insufficient time on the job to implement new ideas," and "the nurse does not have time to read research." Our major barriers relate to organizational infrastructure with key determinants being time, commitment, and communicability. Using the identified barriers, some possible interventions were discussed: development of a nursing clinical practice council, development of guidelines for administrative time for research, annual EBP inservices, and efficient computer access.

Methods for Adoption

Shiprock's Nurse Practice Council for EBP became a reality, with the first meeting as a luncheon to meet and greet members. The council is a method identified that may assist in further adoption of EBP.[10] Council membership includes ten staff members, two nurse managers, one advanced-practice nurse, and one masters prepared nurse as the EBP mentor. A staff nurse is the director of the council. EBP council meets monthly to develop EBP methods for staff to use, which includes several key projects: 1) determining the best model to use when evaluating research for best practice, 2) addressing barriers to EBP, and 3) practicing PICO development and use of the computer for literature reviews. Barriers with the council development that are being addressed include "environmental and social turbulence."[3] "Turbulence" is due in part to an unclear focus by differing groups in the nursing system, levels of adopters' knowledge base for EBP, limited computer access, and failure to reach a consensus for the objectives of the Council. Future goals include development of the Council's infrastructure and its utility towards a sustainable EBP nursing model using measurable goals and objectives.

Since the kick-off, individual unit plans for continuous marketing have included the use of large signs with the initials EBP, "potty points" which are signs in the bathrooms about

EBP, staff meeting information "blurbs," bulletin boards of completed projects, and weekly updates via e-mail. Some of the EBP projects currently being completed include the emergency department's review of the use of saline vs. tap water and/or betadine for irrigation of uncomplicated wounds, and cold water for the cooling process in burn victims. A multidisciplinary project involving several units reviewed the use of tap water vs. sterile water for flushes for enteral tube feeding, and the use of chlorhexidine as preoperative bath product vs. any antibacterial or soap or no shower for the preoperative bath to prevent surgical site infections.

The Emergency department's nursing supervisor is active in keeping EBP communication "on the radar screen" for staff. Several projects include a "Research Review Book" kept at the nurses' desk of current literature reviews on topics of interest, EBP presentations by staff at mandatory staff meetings, and signs as methods of marketing EBP. Interesting topics include: use of Taser stun guns and associated clinical problems vs. other methods of police control, and clinical outcomes in the use of intraosseous vs. central lines for critical vascular access in trauma victims.

Our Intensive Care Unit has a well-established multidisciplinary Journal Club, a method recommended for promoting EBP.[11] Their current project is instituting the ventilator bundle approach to reduce ventilator-associated pneumonia. The barrier that "administration will not let us use EBP" is addressed, since administration fully supports all of the EBP projects and activities and subsequent implementation.

Another method used is "brief reports."[12] This method addresses the barrier of nurses not having time to do the literature reviews and analysis of clinical questions. These are one-page summaries of PICO questions asked by staff. The literature review and evaluation is completed on a one page report and then sent via e-mail to all the nursing staff for their review. One project has been completed using this method. Several other clinical questions are being reviewed that will be written as brief reports to share with all nursing staff. For the first brief report, 49.1% (61 of 124) nurses read the report on use of CHG vs. any or no soap to reduce surgical site infections (see appendix 1 for the report).

Shiprock's CNE, in collaboration with IHS Nursing Leadership and NIH, sponsored two of our nurses to attend research training. One objective for the participants was learning to write realistic and feasible proposals for clinical projects that validate and/or create evidence to support and improve nursing practice. One goal for the training of IHS nurses in research methods is to assist in addressing health care issues of Native Americans. Shiprock's two nurses have plans to study pain assessment in pediatric patients using newly learned skills from their training.

Another suggested method from the literature review is sponsoring an EBP conference, which is a very ambitious and long-range endeavor.[13] A plan to sponsor such a conference, tentatively scheduled for spring 2008, is being facilitated by Shiprock's Staff Development Director. Other Navajo Area Service Unit nurses will be invited. Goals for the conference are networking to share methods for effective implementation or utilization of EBP, sharing methods for EBP decision making at the point of care, and sharing methods of infrastructure development.

Results

Plans for development of an EBP nursing model began in early September 2006. Shiprock has implemented several methods for EBP adoption but full adoption by nurses is proving to be a daunting task. Despite the barriers, several members of the nursing staff are willing and are doing a very good job tackling the system change as an "aside duty." Initial efforts exceeded the goal of getting the message of EBP to more than 20% of the nursing staff, with 49% being reached. As the plan for EBP utilization continues, evaluation of adoption methods and outcomes on nursing practice and patient outcomes is needed. Communicating results from the evaluation process will provide nurses concrete information about EBP utilization effectiveness. Analysis of results may help with improving methods of EBP adoption that will support a sustainable, effective EBP nursing model.

Future Methods for Continued Adoption

EBP adoption is a major piece of the process to effect an organizational system change for an effective EBP nursing model. According to a Cochrane Library meta-analysis, effective methods that lead to full EBP adoption are yet to be realized: "There are no clear implications for organisational practice as there is no good evidence about the impact of organisational infrastructures on the development of evidence based nursing practice."[14] Shiprock is in Rogers's "early stage of agenda setting" (staff acknowledgment and awareness of EBP), and the very fringes of "matching" (trying out EBP). Future stages include "redefining" (molding EBP to fit our objectives and organizational structure), "clarifying" (formalizing our organizational infrastructure for best fit with methods for utilization of EBP) and "routinizing" (EBP becomes institutionalized as a part of the organizational routine).[3] Widespread diffusion of EBP that results in a "tipping point" for EBP into the nursing routine sounds easy enough to accomplish, but effective methods for full adoption remain elusive. Reaching the "tipping point" for sustainability of an effective EBP nursing model will take, as NIH suggests, "one bite at a time."

References

1. Melnyk B, Fineout-Overholt E. *Evidence-Based Practice in Nursing and Healthcare: a guide to best practice.* 2005. Philadelphia: Lippincott, Williams, Wilkins.
2. Heater BS, Becker AM, Olson RK. Nursing interventions and patient outcomes: A meta-analysis of studies. *Nursing Research*. 1988 Sep-Oct;37(5):303-7.

3. Oldenburg B, Parcel G. "Diffusion of Innovations" in Glanz K, Rimer B, Lewis F. (Eds.). *Health Behavior and Health Education, Theory, Research and Practice,* (3rd ed.). San Francisco, Ca: Jossey-Bass.
4. Rogers EM. *Diffusion of Innovations*. (3rd ed.) New York: Free Press, 1983.
5. Glanz K. Rimer B, Lewis F. (Eds.). *Health Behavior and Health Education, Theory, Research and Practice,* (3rd ed.). 2002. San Francisco, Ca: Jossey-Bass.
6. Gladwell M. *The Tipping Point. How little things can make a big difference.* 2002. New York, NY: Back Bay books, Little Brown and Co., Time-Warner Book Group.
7. Blooms' Taxonomy obtained on the World Wide Web at *http://www.nwlink.com/~donclark/hrd/bloom.html*.
8. DiCenso A. Evidence-based nursing practice: how to get there from here. *Nursing Leadership.* 2003(16), No. 4.
9. Funk S, Champagne M, Weise R, Tornquist E. BARRIERS: The Barriers to Research Utilization Scale. *Clinical Methods.* 1991. WB Saunders Co.
10. Busby A. Creating nursing research opportunities in rural healthcare facilities. *Journal of Nursing Care Quality*. 2004;19(2):162-168.
11. Olade R. Evidence-based practice and research utilization activities among rural nurses. *Journal of Nursing Scholarship*, Third Quarter 2004;36(3):220-225.
12. Oermann M, Floyd J, Galvin E, Roop J. Brief reports for disseminating systematic reviews to nurses. *Clinical Nurse Specialist*. 2006. 20(5):233-238.
13. Caramanica L, Maljanian R, Mcdonald D, et al. Evidenced-based nursing practice part 1: a hospital and university collaborative. *Journal of Nursing Administration*. 32(1)January 2002:27-30.
14. Foxcroft DR, Cole N. Organisational infrastructures to promote evidence based nursing practice. *Cochrane Database of Systematic Reviews* 2000, Issue 3. Art. No.: CD002212. DOI: 10.1002/14651858.CD002212.

Appendix 1. Brief report on preoperative bathing

PICO for Shiprock Infection Control Clinical inquiry:

For the reduction of surgical site infections (SSI), does the use of chlorhexidine (CHG) cloths used as a preoperative (preop) bath of the operative area reduce the future risk of surgical site infections compared with current option of no special soap or sanitation procedure other than soap and water?

P: for surgical patients
I: does the bathing with CHG preoperatively
C: compared to regular or no showering
O: prevent the risk of a surgical site infection?

1. *What Intervention was studied?*

Use of CHG preop baths for surgical patients compared to regular or no special soap for a preoperative bath as a measure to reduce surgical site infections.

2. *What Outcome was measured?*

Support for the use of CHG as a gold standard for reducing surgical site infections.

3. *Who was studied?*

Six trials for over 10,000 participants in hospitals
Two trials of 1092 patients compared bathing with CHG with no washing
Three trials of 1443 participants compared bar soap with CHG;
Three trials involving 7691 participants compared CHG with a placebo.

4. *Who were the researchers?*

Data obtained from a Meta analysis from the Cochrane Library data base on preoperative bathing:
Webster J, Osborn S. (2006). Preoperative bathing or showering with skin antiseptics to prevent surgical site infection. Cochrane Database Syst Rev. 2006 Apr19;(2):CD004985.Review. PMID: 16625619 [PubMed - indexed for MEDLINE] Mangram AJ, et al., Guideline for prevention of surgical site infection, 1999. CDC/HICPAC, Atlanta GA.

5. *What were the results?*

Report from Cochrane: "Using chlorhexidine (CHG) for preoperative bathing or showering is unlikely to prevent surgical site infection. Surgical site infection is a serious complication of surgery and may be associated with increased length of hospital stay for the patient and higher hospital costs. The use of an antiseptic solution for pre-operative bathing or showering is widely practiced in the belief that it will help to prevent surgical site infection. However, the review found six trials that included over 10,000 patients that did not show any evidence of benefit for the use an antiseptic solution over other wash products"(Webster, et al,2006).

6. *Final analysis and practical application for NNMC:*

Based on our evidence-based practice studies, purchasing CHG as a preop bath product is not supported in the literature as cost effective for reduction of SSI.

MRSA in American Indians and Alaska Natives

Rizwan Shareef, PhD, Director of Laboratory services, Sage Memorial Hospital, Ganado, Arizona; Felician Stancilou, MD, Sage Memorial Hospital; and Syed H. Ahmed, MD, FRCS, MBA, Assistant Professor of Surgery, Texas Tech University Health Science Center, Amarillo, Texas (formerly at Sage Memorial Hospital)

Introduction

A report from CDC published in February 2005 indicates that about 10% of *Staphylococcus aureus* isolated in the US are susceptible to penicillin.[1] While most *S. aureus* isolates show resistance to penicillin, they are still susceptible to other beta lactam antibiotics like methicillin and oxacillin. Strains resistant to oxacillin and methicillin are also resistant to the rest of the beta lactam antibiotics, including cephalosporins and carbapenems. Certain ethnic groups, including a Native American population in the US midwest and aboriginal people in Canada and as far away as Australia, have been reported to have propensity for acquisition of community acquired methicillin-resistant *Staphylococcus aureus* (MRSA). The authors looked at the problem of MRSA in Ganado, Arizona, on the Navajo Indian Reservation. The hospital is in a remote location and serves a catchment area of 18,000 people in Apache county in northern Arizona.

Materials and Methods

The study was done by analysis of patient data from those who had positive cultures for MRSA. The specimens were collected in the outpatient clinics, the emergency room, or the inpatient area. Standard collection techniques and precautions were used. Swab samples were taken and immediately placed in transport media. The specimens were transported to the reference laboratory using a courier service. On arrival, all samples were plated as per protocol and incubated for recommended times at specific temperatures and under aerobic/anaerobic conditions. Screening plates were used in most cases. Suspected MRSA colonies were sub-cultured on blood agar plates for further testing and confirmation using standard techniques. Patient demographics were collected from chart review. This included age, sex, medical diagnoses, and presence or absence of diabetes.

Results

From January 2003 to October 2006, a total of 69 cultures were positive for MRSA. The number has steadily increased since 2003. There were 45 males and 24 females. All of these patients had come to the hospital with an infection that they had developed at home. Although most patients were adults, all age groups were affected (Table 1). Twenty four of these patients also had diabetes as evidenced by a hemoglobin A_1C level of more than 6.0 (Table 2). Most of the cultures were from skin infections (66 out of 69). The infections involved mostly the lower extremities but no body part was immune (Table 3).

Table 1. MRSA culture positive, by age group and sex

YEAR	CHILDREN (0-12 YRS)	YOUNG ADULTS (13-19 YRS)	ADULTS (20-60 YRS)	ELDERLY (61 YRS +)	TOTALS
2003	NONE	1M	2M+2F	1M+1F	7
2004	1M+1F	1M	1M+6F	1M+1F	12
2005	6M+1F	1M	6M+7F	4F	25
2006 (OCT)	2M+4F	NONE	11M+6F	1M+1F	25
#, (%)	15 (21.7)	3 (4.3)	41 (59.4)	10 (14.4)	69
% M or F	M (60) F (40)	M (100)	M (48.78) F (51.21)	M (30) F (70)	M (59.69) F (40.31)

M=MALES, F= FEMALES

Table 2. MRSA culture positive with diabetes mellitus (A_1c over 6.0)

YEAR	CHILDREN (0-12 YRS)	YOUNG ADULTS (13-19 YRS)	ADULTS (20-60 YRS)	ELDERLY (61 YRS +)	TOTALS (%)
2003	NONE	NONE	1M+1F	NONE	2 (28.3)
2004	NONE	NONE	1M+2F	1M	4 (33.3)
2005	NONE	NONE	3M+3F	3F	9 (36.0)
2006 (OCT)	NONE	NONE	6M+2F	1F	9 (36.0)
#, (%)	0	0	19/41 (46.3)	5/10 (50)	24 (34.78)

Table 3. Site of infection (all four years)

Site of infection	# of isolates				Total
	2003	2004	2005	2006	
Leg/foot/thigh	2	3	5	6	16
Buttock/hip	1	2	6	6	15
Arm/hand	1			5	6
Eye	1	1	2	1	5
Breast		2		1	3
Abdomen/back			1	2	3
Head/neck	1		1	1	3
Knee			2	1	3
Wound/incisions/boil		1	2		3
Ear			2	1	3
Finger/thumb			1	1	2
Toe		1	1		2
Sputum		1			1
Chin			1		1
Urine			1		1
Face	1				1
Miscellaneous		1			1
Total isolated =	7	12	25	25	69

Discussion

Historically, infection with strains of MRSA has been acquired by persons in hospital and nursing home settings.[2] However, in the recent years, community acquired MRSA has

become an important health problem.[3]

The emergence of a pathogen in the community depends on its ability to survive in different environments and to interact successfully with the host. *Staphylococcus aureus* is one of the most successful and adaptable human pathogens. The remarkable ability of the bacterium to acquire antibiotic-resistance mechanisms and advantageous pathogenic determinants has contributed to its emergence in both nosocomial and community settings. However, because of different selective pressures, several notable differences exist between nosocomial isolates and community acquired strains.[3]

Methicillin resistance first appeared among nosocomial isolates of *S. aureus* in 1961.[4] Since that time, MRSA has become widespread in hospitals and intensive care units around the world.[5] More than 50% of infections caused by *S. aureus* in intensive care units and more than 40% of *S. aureus* infections outside the intensive care units are MRSA infections.[2] In the past decade, new strains of MRSA have emerged in the community.[5] Patients tend to be younger and have skin and soft tissue infections or other necrotizing infections.[6] Persons in crowded conditions including athletes, military personnel, jail inmates, and day care workers are at risk.[7] Community acquired MRSA (CA-MRSA) differs from hospital acquired MRSA in several important ways. These include lack of traditional risk factors associated with MRSA among patients, a susceptibility pattern with resistance to fewer classes of antimicrobial drugs, and the inclusion of specific virulence factors.[2]

As early as 1980, *S. aureus* strains were resistant to semi-synthetic penicillins but were not multiply resistant to other important anti-staphylococcal drugs. In the past several years, community associated MRSA has increased in incidence, causing outbreaks in several well defined populations.[2] Some reports of CA-MRSA infections have included patients from rural communities, including Native American populations.[8] There have also been outbreaks reported in communities largely made up of Alaska Natives; these have been associated with prior antibiotic use.[9] Low socioeconomic status, crowded housing conditions, and limited access to health care contribute to the high background rates of infections in Native Americans.[8] In a survey of four health care facilities in Hawaii between July 2001 and June 2003, 51% of patients infected with CA-MRSA were Pacific Islanders, who constitute 24% of state's population.[10]

Even though the most common clinical syndrome has been skin and soft tissue infections, several less common syndromes have been associated with outbreaks of CA-MRSA infection, including pneumonias and necrotizing fasciitis.[11]

Although the origins of these strains of CA-MRSA are obscure, their appearance and proliferations are likely attributable to several factors. The main factor is antimicrobial use generally, both appropriate and inappropriate.[2] The rising incidence of MRSA infection outside the health care setting has several implications for public health and clinical diagnosis and treatment. *S. aureus* is already a common cause of disease, and the appearance of new strains that are more virulent and resistant could signal increased incidence of disease.[2] Surveillance for *S. aureus* needs to be improved so that the prevalence and geographic distribution of CA- MRSA is better defined and can be monitored for trends. This may include development of standardized methods for state-based surveillance; active population-based surveillance, use of existing data, periodic nasal colonization studies, and improved laboratory detection of MRSA to allow monitoring of trends in the microbial characteristics of CA-MRSA.[2]

Conclusion

In summary, infection control practitioners and clinicians working in rural areas are likely to confront problems of hospital and community acquired MRSA infection. The role of more aggressive prevention strategies, such as active surveillance culturing, in these rural settings is still uncertain. Further studies of the epidemiologic factors that influence MRSA transmission and infection control interventions in rural communities are needed.

References

1. Laboratory detection of oxacillin/methicillin-resistant *Staphylococcus aureus*. *http:www.cdc.gov/ncidod/hip/Lab/FactSheet/mrsa.htm*.
2. Community-associated methicillin-resistant *Staphylococcus aureus*. Weber JT. *Clin Infect Dis*. 41Suppl:S269-72 2005.
3. Community-acquired methicillin- resistant *Staphylococcus aureus*: an emerging threat. Zetola N, Francis JS, Nuermberger EL, et al. *Lancet Infect Dis*. 2005;5(5):275-86.
4. Jevons MP. Celbenin-resistance staphylococci. *BMJ*. 1961;1:124-25.
5. Centers for Disease Control and Prevention. Four pediatric deaths from community acquired methicillin-resistant *Staphylococcus aureus* - Minnesota and North Dakota, 1997-1999. *MMWR*. 1999;48:707-10.
6. Naimi TS, LeDell KH, Como-Sabetti K, et al. Comparison of community- and health care associated methicillin-resistant Staphylococcus infection. *JAMA*. 2003;290:2976-84.
7. Community-acquired methicillin-resistant *Staphlococcus aureus*, a new player in sports medicine. Lu D, Holton P; *Curr Sports Med Rep*. 2005;4(5):265-7
8. Groom AV, Wolsey DH, Naimi TS, et al. Community acquired methicillin-resistant *Staphylococcus aureus* in rural American Indian community. *JAMA*. 2001;286:1201-5.
9. Bagget HC, Hennessy TW, Leman R, et al. An outbreak of community onset methicillin-resistant *Staphylococcus aureus* skin infections in southwestern Alaska. *Infect Control Hosp Epidemiol*. 2003;24:397-402.
10. Centers for Disease Control and Prevention. Community-associated methicillin-resistant *Staphylococcus aureus* infections in Pacific Islanders - Hawaii, 2001-2001. *MMWR*. 2002;53:767-70.
11. Miller LG, Perdreau-Remington F, Reig G, et al. Necrotizing fasciitis caused by community-associated methicillin-resistant *Staphylococcus aureus* in Los Angeles. *N Engl J Med*. 2005;352:1445-53.

New Federal Prescription Drug Disposal Guidelines

Stewart Jorgensen, RPh, Schurz Service Unit, Walker River Clinic, Schurz, Nevada

The procedure for the disposal of expired, adulterated, unused, or unneeded drugs by placing these in the sewer system had been endorsed by government agencies in the past. The White House Office of National Drug Control Policy (ONDCP), the Department of Health and Human Services (DHHS), and the Environmental Protection Agency (EPA) now recommend that consumers, physicians, nurses, and pharmacists dispose of most drugs by placing these in the trash. The reason for the change in policy is the growing amount of evidence that many of these drugs have been detected in our fresh water supplies. The new guidelines are meant to protect our nation's water supply and to ensure that the disposed drugs cannot be misused or abused. Mixing the disposed prescription drug with an undesirable substance will help ensure that medication thrown in the trash is not diverted or accidentally ingested by children or pets.

The new Federal guidelines at *www.whitehousedrugpolicy.gov/drugfact/factsht/proper_disposal.html* contain the following directions for the proper disposal of prescription drugs:

- Take unused, unneeded, or expired prescription drugs out of their original containers and throw them in the trash.
- Mixing prescription drugs with an undesirable substance, such as used coffee grounds or kitty litter and putting them in impermeable, nondescript containers, such as empty cans or sealable bags, will further ensure the drugs are not diverted.
- Flush prescription drugs down the toilet only if the label or accompanying patient information specifically instructs doing so.
- Take advantage of community pharmaceutical take-back programs that allow the public to bring unused drugs to a central location for proper disposal. Some communities have pharmaceutical take-back programs or community solid-waste programs that allow the public to bring unused drugs to a central location for proper disposal. Where these exist, they are a good way to dispose of unused pharmaceuticals.

The FDA advises that the following drugs be flushed down the toilet instead of thrown in the trash:

Actiq (fentanyl citrate)
Daytrana transdermal patch (methylphenidate)
Duragesic Transdermal System (fentanyl)
OxyContin tablets (oxycodone)
Avinza capsules (morphine sulfate)
Baraclude tablets (entecavir)
Reyataz capsules (atazanavir sulfate)
Tequin tablets (gatifloxacin)
Zerit for oral solution (stavudine)
Meperidine HCl tablets
Percocet (oxycodone and acetaminophen)
Xyrem (sodium oxybate)
Fentora (fentanyl buccal tablet)

Note: Patients should always refer to printed material accompanying their medication for specific instructions.

This is a page for sharing "what works" as seen in the published literature, as well as what is being done at sites that care for American Indian/Alaskan Native children. If you have any suggestions, comments, or questions, please contact Steve Holve, MD, Chief Clinical Consultant in Pediatrics at sholve@tcimc.ihs.gov.

IHS Child Health Notes

Quote of the month

"Hypocrisy is the homage vice pays to virtue"

Oscar Wilde

Article of Interest

Lactose intolerance in infants, children, and adolescents. *Pediatrics*. 2006 Sep;118(3):1279-86. *http://aappublications.org/cgi/content/abstract/118/3/1279*

Lactose intolerance is common, especially in non-white populations. The AAP has released a summary statement based on a systematic review of the literature. The most important point is that while primary lactase deficiency is common in older children and adults it is uncommon in children < 3 years of age. Congenital lactase deficiency is extremely rare. Nearly all infants, including AI/AN infants, should be able to have lactose in their diets.

Transient secondary lactase deficiency after an acute viral gastroenteritis is common and nearly always resolves rapidly. Only very young children (< 3 months) or malnourished children will need a lactose free formula. Most children, even if lactase deficient, can drink up to 8 ounces of milk in a day without symptoms. Formal testing is not needed. A trial of a lactose free diet followed by reintroduction of lactose-containing milk and recurrence of symptoms is sufficient to make the diagnosis.

Editorial Comment

We spend a lot of time worrying about cow's milk. Breastfeeding is best but most infants should be able to drink a lactose-containing formula if needed. Older children can often drink some milk and can take partially digested products including cheese and yogurt and pretreated milk. It is the rare child who needs all lactose foods removed from their diet.

Infectious Disease Updates
Rosalyn Singleton, MD, MPH

2006-7 influenza activity in the United States peaked in mid-February. In late May, 20 states reported sporadic activity, and 30 states reported no influenza activity. It was a mild influenza season, and the percent of deaths due to pneumonia and influenza remained below baseline levels for the entire influenza season. Between Oct. 2006 – May 2007, CDC received 60 reports of influenza-associated pediatric deaths. Since October 1, 2006, of the 23,181 influenza viruses cultured, 18,392 (79.3%) were influenza A viruses and 4,789 (20.7%) were influenza B viruses. Among the influenza A viruses, 63.5% were H1 viruses and 36.5% were H3 viruses. Influenza vaccine is expected to be in good supply for the 2007-8 season; the CDC says that the US should have a record 127 million flu vaccine doses for next season.

Live nasal flu vaccine (FluMist®) is currently licensed only for 5 - 49 year olds. Two FluMist® studies were published in October in *Pediatric Infectious Disease Journal*. The first indicated that FluMist® was well-tolerated in children with asthma. The second study showed that FluMist® was associated with fewer cases of influenza from vaccines than the influenza shot in 6 - 71 month-old children. MedImmune Inc. has applied for an age expansion of FluMist® down to 1 year of age.

Bird Flu cases among humans and birds have been declining since January. Although WHO officials think the current cycle of the H5N1 strain is nearing an end, they remain concerned about "pockets" of the disease in Indonesia, Nigeria, and Egypt. Preparing for a global pandemic in the event that the virus mutates and passes from person to person should still be a major priority.

Recent literature on American Indian/Alaskan Native Health
Doug Esposito, MD

Williams JF, Storck M, American Academy of Pediatrics Committee on Substance Abuse; American Academy of Pediatrics Committee on Native American Child Health. Inhalant abuse. *Pediatrics*. 2007 May;119(5):1009-17. *http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=17473104&query_hl=5&itool=pubmed_docsum*

This clinical report was jointly authored by the AAP Committee on Substance Abuse and the Committee on Native American Child Health, and stands as a valuable reference for those working with AI/AN children. Unfortunately, children in the populations we serve are known to be at elevated risk for abusing inhalants, especially the volatile hydrocarbons. They are easy to obtain, being almost ubiquitous in homes and the local environment. They are legal (for their intended uses), easy to conceal, and inexpensive. Consequently, they tend to

be more widely abused by younger kids than any other substance class. Furthermore, this problem does not respect national boundaries. First Nations populations in Canada widely report high rates of this malady, and I have seen first hand large numbers of Native children in both Central and South America partaking of this form of "escape." In the US, inhalant abuse occurs everywhere and among all ethnicities and socioeconomic classes. However, it tends to be more prevalent anywhere there is significant socioeconomic disadvantage, geographic isolation (code for rural), and social isolation; *ergo*, reservations.

For anyone working with Native populations for any length of time, if you haven't run into this problem yet, then you haven't been looking. It's out there! For those of us on the Navajo Nation, all you have to do is look around the Bashas' parking lot or in the adjacent weeds and drainage ditches to find the ubiquitous cans of AquaNet hairspray used to make "ocean." Although a reasonably common practice among adults, kids partake of this concoction as well. And, its use (or misuse) can be fatal. I've seen it!

I would encourage everyone to at least skim this article, or better yet, read it thoroughly and in its entirety. I am sure you will find it to be either a valuable review of or an excellent introduction to a prevalent and dangerous problem. Please, be on the lookout.

Centers for Disease Control and Prevention. Fatal injuries among children by race and ethnicity – United States, 1999-2002. Surveillance Summaries, May 18, 2007. *MMWR* 2007;56(SS-5). *http://www.cdc.gov/mmwr/PDF/ss/ss5605.pdf*

Not long ago, I reviewed an article by Pressley, et al[1] on early childhood injury.[2] In that review, I pointed out an important study limitation related to the racial misclassification that occurs on death certificates and the impact racial misclassification has on reported mortality and disease rates that are derived from death certificate-dependent databases. The resultant effect of this bias is to underestimate mortality and disease rates for Native Americans.

Well, as luck would have it, the very week I submitted my review to Dr. Holve, a similar study was published in the *MMWR*! In this report, the authors referenced a CDC study that quantifies the net effect of this error. They state that "adjusting for misclassification would increase reported rates for AI/ANs by approximately 20.6%."[3] So, what does this all mean? Injury mortality rates for AI/AN children are significantly worse and the disparities significantly greater than reported. This renders the progress that appears to have been made far less impressive. Although progress is certainly being made, much remains to be done if we are to successfully eliminate injury as a health disparity for AI/AN children by 2010. *Healthy People 2020*, anyone?

References

1. Pressley JC, Barlow B, Kendig T, et al. Twenty-year trends in fatal injuries to very young children: the persistence of racial disparities. *Pediatrics*. 2007 Apr;119(4):e875-84. *http://www.ncbi.nlm.nih.gov/entrez/query.fcgi?db=pubmed&cmd=Retrieve&dopt=AbstractPlus&list_uids=17403830&query_hl=4&itool=pubmed_DocSum*
2. IHS Child Health Notes, June/July 2007. *http://www.ihs.gov/MedicalPrograms/MCH/M/documents/IHSchildnotesJune2007.doc*
3. Rosenberg HM, Maurer JD, Sorlie PD, et al. Quality of death rates by race and Hispanic origin: a summary of current research, 1999. *Vital Health Stat 2*. 1999 Sep;(128):1-13. *http://www.cdc.gov/nchs/data/series/sr_02/sr02_128.pdf*

Locums Tenens and Job Opportunities

If you have a short or long term opportunity in an IHS, tribal or urban facility that you'd like for us to publicize (i.e., on the AAP website or complimentary ad on Ped Jobs, the official AAP on-line job board), please forward the information to *indianhealth@aap.org* or complete the on-line locum tenens form at *http://www.aap.org/nach/locumtenens.htm*.

Editor's Note: The following is a digest of the monthly Obstetrics and Gynecology Chief Clinical Consultant's Newsletter (Volume 5, No. 7, August 2007) available on the Internet at http://www.ihs.gov/MedicalPrograms/MCH/M/OBGYN01.cfm. *We wanted to make our readers aware of this resource, and encourage those who are interested to use it on a regular basis. You may also subscribe to a listserv to receive reminders about this service. If you have any questions, please contact Dr. Neil Murphy, Chief Clinical Consultant in Obstetrics and Gynecology, at* nmurphy@scf.cc.

OB/GYN Chief Clinical Consultant's Corner Digest

Abstract of the Month
Within the Hidden Epidemic: Sexually Transmitted Diseases and HIV/AIDS Among American Indians and Alaska Natives.

Objectives: To review the epidemiology, research, and prevention programs for sexually transmitted diseases in American Indians and Alaska Natives (AI/ANs).

Study Design: We reviewed the current national and regional trends in sexually transmitted diseases (STDs) for AI/ANs from 1998-2004, peer-reviewed studies from January 1996, through May 2006, and reports, unpublished documents, and electronic resources addressing AI/AN STD prevention and control.

Results: STD prevalence among AI/ANs remains high. For example, the case rate of *C. trachomatis* in the North Central Plains AI/AN populations is 6 times the overall US rate. Trends for *C. trachomatis* also show sustained increases. Little research exists on STDs for this population, and most is focused on HIV/AIDS. Fear of compromised confidentiality, cultural taboos, and complex financial and service relationships inhibit effective surveillance, prevention, and management.

Conclusions: Recommendations for STD control in this population include improved local surveillance and incorporation of existing frameworks of health and healing into prevention and intervention efforts. Research defining the parameters of cultural context and social epidemiology of STDs is necessary.

OB/GYN CCC Editorial comment
The need for historically grounded HIV/AIDS prevention research among Native Americans

This is a brief report that summarizes the need for historically grounded HIV prevention research among Native Americans living in the US. It illustrates the intersection of culture and history, showing that ethnic groups can respond to historical traumatic events for generations, often to the detriment of individual and collective health. *Journal of the Association of Nurses in AIDS Care*. 2007 Mar-Apr;18(2):15-7.

American Indian Women, HIV/AIDS, and Health Disparity

Data are presented regarding the prevalence of HIV/AIDS among American Indian women. Health disparities found among American Indians are discussed and biological, economic, social, and behavioral risk factors associated with HIV are detailed. Recommendations are suggested to alleviate the spread of HIV among American Indian women and, in the process, to diminish a culture of treatment malpractice and a weakening of treatment ethics, racism, and genderism. *Substance Use and Misuse*. 2007;42(4):741-752.

The IHS National STD Program: A great resource

You will recognize many of the author's names in the abstract above from the IHS Division of Epidemiology and Disease Prevention and the IHS National STD Program. Don't hesitate to utilize the expertise the IHS National STD Program has to offer on HIV prevention and control. Below is some background on the IHS National STD Program.

National IHS HIV/AIDS Consultant

Scott Giberson is another great resource. Scott is the National IHS HIV/AIDS Consultant in the Office of Clinical and Preventive Services, HQE and a regular contributor to the CCCC. Reference: Online

From Your Colleagues
Scott Giberson, HQE
AI/AN population has the shortest timeline HIV to AIDS

The AI/AN population has the 3rd highest rate of HIV/AIDS, the shortest timeline between diagnosis and death, and the highest percentage of 'late' diagnosis (determined by progression of disease at time of diagnosis) of any race/ethnic group. This suggests the critical preventive component of missed screening opportunities. Reports of the percentage of AI/AN tested for HIV range anywhere from below 50% to roughly 75%. Given the risk factors and population vulnerabilities, it is imperative we screen individuals at every opportunity. The impact of screening early and often is easily justifiable as treatment and care are available. Screening also serves as a preventive measure since it is estimated that over half of newly infected individuals acquire HIV from those unaware of their status.

With the revised CDC testing guidelines, states are changing requirements and attempting to adjust policy to effectively implement more broad-based screening efforts. The IHS supports these CDC recommendations and has

removed any potential barriers (at the Agency level) to increase screening efforts. We each need to take on the responsibilities of advocate, supporter, facilitator, or provider of prevention and care, to include advocacy for HIV screening. Go to *www.ihs.gov/medicalprograms/hivaids/*.

Hot Topics

Obstetrics

VBAC: Smaller attributable risk than previously reported

Objective: To compare pregnancy outcomes in women with one prior low-transverse cesarean delivery after induction of labor with pregnancy outcomes after spontaneous labor.

Methods: This study is an analysis of women with one prior low-transverse cesarean and a singleton gestation who underwent a trial of labor and who were enrolled in a 4-year prospective observational study. Pregnancy outcomes were evaluated according to whether a woman underwent spontaneous labor or labor induction

Results: Among the 11,778 women studied, vaginal delivery was less likely after induction of labor both in women without and with a prior vaginal delivery (51% versus 65%, P<.001; and 83% versus 88%, P<.001). An increased risk of uterine rupture after labor induction was found only in women with no prior vaginal delivery (1.5% versus 0.8%, P=.02; and 0.6% versus 0.4%, P=.42). Blood transfusion, venous thromboembolism, and hysterectomy were also more common with induction among women without a prior vaginal delivery. No measure of perinatal morbidity was associated with labor induction. An unfavorable cervix at labor induction was not associated with any adverse outcomes except an increased risk of cesarean delivery.

Conclusion: Induction of labor in the study population is associated with an increased risk of cesarean delivery in all women with an unfavorable cervix, a statistically significant, albeit clinically small, increase in maternal morbidity in women with no prior vaginal delivery, and no appreciable increase in perinatal morbidity. LEVEL OF EVIDENCE: II.

OB/GYN CCC Editorial comment

VBAC: The pendulum needs to swing back

After peaking in 1996, the vaginal birth after cesarean delivery (VBAC) rate has steadily declined to 13% in 2004. This decline has been accompanied by a number of articles that have questioned whether a trial of labor is equally suitable for all women with a prior low-transverse cesarean delivery. Correspondingly, investigators have tried to identify factors predictive of a lower chance of a successful trail of labor as well as a greater chance of uterine rupture, and thereby identify the specific women for whom a trial of labor is less safe and appropriate.

In contrast to the declining rate of VBAC, the rate of labor induction has been steadily increasing, more than doubling over the last decade to a frequency of more than 20%. Thus, the effect of induced versus spontaneous labor in women attempting VBAC is of particular interest. Initial reports suggested that women who underwent labor induction were no more likely than their spontaneously laboring counterparts to have a cesarean delivery or a uterine rupture. More recent studies, however, have challenged both conclusions, showing a higher rate of both cesarean delivery and uterine rupture among women undergoing labor induction with a prior cesarean delivery.

The 2001 Lydon-Rochelle et al study in the *NEJM* raised questions about a possible higher rate of uterine rupture during induction of labor after previous cesarean delivery and temporally was related with a further erosion of the VBAC rate. The current prospective observation study above further illuminates the weakness of the Lydon-Rochelle et al article, which was based on ICD-9 codes alone, a method known for ascertainment bias.

Women who desire a VBAC and are confronted with the decision to undergo labor induction can be counseled that their risk for most serious adverse outcomes is not significantly increased, the adverse outcomes that are increased have a small attributable risk associated with induction, and that even this small attributable risk appears limited to women without a prior vaginal birth.

Reference: Online

Gynecology

LEEP doubles risk of preterm delivery: Patients need to be informed

Conclusion: Our study showed an almost 2-fold increase in the risk of preterm delivery after LEEP treatment. Thus, women in their reproductive age should be informed about the increased risk of preterm delivery, if treated with LEEP.

Nøhr B et al. Loop electrosurgical excision of the cervix and the subsequent risk of preterm delivery. *Acta Obstet Gynecol Scand*. 2007;86(5):596-603.

Child Health

Physical Activity Alone May Not Reduce Obesity in Children

Conclusion: The authors conclude that this program to increase physical activity resulted in improvement in motor skills of children four to five years of age but had no demonstrable impact on obesity. They suggest that the program may have provided inadequate levels of physical activity to produce a measurable effect, and that several factors may need to be addressed simultaneously to impact body mass index. They suggest that future intervention programs for obesity in early childhood should incorporate attention to diet, more behavioral approaches, and greater involvement of parents.

Reilly JJ, et al. Physical activity to prevent obesity in young children: cluster randomised controlled trial. *BMJ*. 2006;333:1041-3.

Chronic disease and Illness

Teratogenicity of SSRIs: serious concern or much ado about little?

Researchers from Boston University's Slone Epidemiology Center have found that certain selective serotonin reuptake inhibitor (SSRI) antidepressants do not appear to increase the risk for most kinds of birth defects.

Conclusions: Our findings do not show that there are significantly increased risks of craniosynostosis, omphalocele, or heart defects associated with SSRI use overall. They suggest that individual SSRIs may confer increased risks for some specific defects, but it should be recognized that the specific defects implicated are rare and the absolute risks are small.

Louik C, et al. First-trimester use of selective serotonin-reuptake inhibitors and the risk of birth defects. *N Engl J Med*. 2007;356(26):2675-83.

Features

ACOG, American College of Obstetricians and Gynecologists

Management of Herpes in Pregnancy: Practice Bulletin Summary of Recommendations and Conclusions

The following recommendations and conclusions are based on limited or inconsistent scientific evidence (Level B):

- Women with active recurrent genital herpes should be offered suppressive viral therapy at or beyond 36 weeks of gestation.
- Cesarean delivery is indicated in women with active genital lesions or prodromal symptoms, such as vulvar pain or burning at delivery, because these symptoms may indicate an impending outbreak.

The following recommendations and conclusions are based primarily on consensus and expert opinion (Level C):

- In women with premature rupture of membranes, there is no consensus on the gestational age at which the risks of prematurity outweigh the risks of HSV.
- Cesarean delivery is not recommended for women with a history of HSV infection but no active genital disease during labor.
- Routine antepartum genital HSV cultures in asymptomatic patients with recurrent disease are not recommended.
- Routine HSV screening of pregnant women is not recommended

Management of Herpes in Pregnancy. ACOG Practice Bulletin No. 82. American College of Obstetricians and Gynecologists. *Obstet Gynecol*. 2007;109:1233-48.

Breastfeeding

Suzan Murphy, PIMC

What to do when Mom says, "My newborn likes the bottle better."

Why does this happen? In a normal, healthy newborn, bottle preference is usually from overuse of a bottle and/or pacifier. However, it is helpful to rule out unusual newborn issues that can effect sucking, like a short frenulum or thrush.

What is the cause? Formula or breast milk comes out of the bottle quickly, with just a little tug. Also, the plastic nipple can rub the roof of the mouth, stimulating the suck. It is not much work for the baby, and there is no waiting for letdown. Breastfeeding takes more work. Often, but not always, a baby will begin to favor the bottle and avoid breastfeeding. Unfortunately, it is hard to know which baby will be influenced by frequent bottles/pacifiers.

In the first couple of weeks, there is probably still time for the mom's supply to bounce back. To get mom and baby back to breastfeeding:

- Assure the mom that her baby is getting enough
- Have her count diaper changes; if her baby has used at least 6 in 24 hours, her baby probably has adequate intake.
- Check her baby's weight gain; 1/2 to 1 oz per day or 3.5 to 7 oz per week is normal
- Tell the mom to breastfeed about every 2 hours, 8 to 12 times in 24 hours. The baby's suck muscles and mom's milk supply will get up to speed together and the frequency will slow down within a couple days.
- Discourage the "pump and feed" method; it has a near 100% burn out rate.
- Tell the mom to praise her baby for sucking well. The baby knows mom's happier voice and will respond appropriately.
- Recommend less use of the bottle. If the bottle can be weaned down to once or twice a day, the mom's milk supply will probably be protected. Less is best in the first 4-6 weeks.
- Suggest that the pacifier be avoided – and saved for difficult times like car trips with a screaming baby or challenging moments.

If it looks like it really is a supply issue, or the "bounce back" is not happening, consider medication. Clinical studies indicate that metoclopromide can increase milk supply in difficult situations. For more information, refer to Thomas Hales' text, Medications and Mother's Milk or sources like the San Diego Breastfeeding Coalition web page, below. If the baby won't latch, refer the mom to WIC or a Lactation Consultant. It is OK to call us for over-the-phone ideas at 1-877-868-9473. It is toll-free; the best times are 7 am – 10 pm, Mountain Standard Time.

What about extra fluids? Clinical studies have not agreed with the common practice of encouraging fluids to increase milk supply. Unfortunately the studies were small, each with less than 30 participants, and did not correct for climate issues, such as excessive heat/cold, or the typical amount of outdoor exposure the mother experienced. So while encouraging water is a healthy practice, excessive fluids are not necessary. A reasonable recommendation is to keep water nearby and drink to thirst.

Please note: if it is believed that a specific (safe) beverage will help, it probably will. Confidence is a powerful tool with parenting, especially breastfeeding. Go to

http://www.breastfeeding.org/articles/reglan.html.

Family Planning

Waiting until the menses to start hormonal contraceptives: Needless Obstacle

Conclusion: Protocols that require a woman to wait until the next menses to start hormonal contraceptives are an obstacle to contraceptive initiation. Directly observed, immediate initiation of the pill improves short-term continuation.

Westhoff C, et al. Initiation of oral contraceptives using a quick start compared with a conventional start: a randomized controlled trial. *Obstet Gynecol*. 2007 Jun;109(6):1270-6.

Frequently asked questions

Q. Can oral or sublingual misoprostol be used for postpartum hemorrhage?

A. Yes and both have a more rapid onset of action than rectal administration. The doses are smaller than some of the rectal doses that are being used. The sublingual and oral doses of misoprostol mentioned in the articles below are 400 and 600 microg. Sublingual and oral doses reach a peak concentration much more rapidly, so sublingual or oral dosing may have more of a role in the acute management of PPH, rather than the mid and long term management as with rectal misoprostol. The time to peak concentration (Tmax) was similar in both the sublingual (26.0 +/- 11.5 min) and oral groups (27.5 +/- 14.8 min) and was significantly shorter than those in both vaginal groups.

Reference: Online

International Health Update

Claire Wendland, Madison, WI

Maternal survival redux: a view from Malawi - Failure of justice

Last November this column reviewed the *Lancet's* recent series on maternal survival, which assessed the progress and pitfalls of the Safe Motherhood movement. This month I want to revisit the issue of maternal survival from a more personal perspective. I spent the first five months of 2007 in Blantyre, Malawi, the largest city in a country in which a woman's lifetime chance of dying from childbirth complications is around one in eight. While there I spent part of each week working clinically in a busy public referral and teaching hospital, alongside many of the nation's new nurse midwives- and doctors-in-training. During these five months we averaged two to three maternal deaths every week in the hospital. I also spent time out in the community, interviewing nurse midwives at area health centers, and speaking with traditional midwives (TBAs in the biomedical lexicon). Many health workers – both within and outside of the formal medical sector — shared their perceptions of maternal risk in Malawi. Some thoughts based on these experiences follow.

Birth in a safe facility, attended by a skilled health worker, is just a start. And it doesn't necessarily equate with "birth in a hospital with a biomedically trained doctor or nurse midwife." Can a referral hospital be considered a "safe facility" if it has no sutures, runs out of all antibiotics except penicillin G, or has such poor staffing that one nurse covers a ward of eighty patients? Can a government health center be considered safe if there is no equipment to start an IV, nor any blood pressure cuff? What if the "skilled health worker" is demoralized and apathetic because he hasn't been paid in two months? What if she is a brand new intern – poorly trained and supervised – who learned how to do a Cesarean from another intern and isn't too sure how to use oxytocin? Making motherhood safer won't happen simply by bringing women into the hospital. It is going to require detailed attention to sector-wide issues like supply chains, health sector funding, training, and brain drain.

Infection is playing a huge role in maternal deaths, at least in countries with high HIV prevalence, and the role of Cesarean section needs to be investigated carefully in these settings. Since I first worked in Malawi, the pattern of maternal deaths has shifted. In 1990, deaths from septic unsafe abortion were common, as was death from hemorrhage. In 2007, both of these have declined, but postpartum – and especially postoperative – infection deaths have skyrocketed. HIV-positive women are especially (but not exclusively) at risk. HIV treatment and prevention are crucial. And in this setting, the increased morbidity and mortality attendant upon surgical intervention should affect the risk/benefit analysis for Cesarean: the adoption of First World standards like surgical delivery for breech needs careful re-evaluation.

We should rethink — again — the question of traditional birth attendant training. TBA training has all but vanished from international funders' priorities, based on conflicting data on effectiveness. This despite the fact that TBAs continue to be the attendants at many births in the developing world; half of Malawi's births are outside of formal-sector health facilities. TBAs I spoke with in Malawi very strongly advocated for a restoration of training programs that they felt provided them not only with valuable information and skills, but perhaps even more importantly enabled them to forge mutually respectful connections with district health offices and staff at local hospitals. These proved invaluable when it came time to manage difficult cases together.

Women's empowerment is more than a buzzword. In too many families, a woman's value is in her capacity to bear children. In too many places, a girl's ability to access schooling or employment depends on her willingness to trade sex for the patronage of an older male. In too many countries, women do not make the policy decisions that affect their lives. When a fifteen-year-old dies after an unsafe abortion, when a woman who knows she has AIDS dies of postpartum sepsis after her third attempt in three years to bear a son, maternal death is not just a biomedical problem, remediable by technical interventions. It is a failure of justice.

MCH Headlines
Judy Thierry HQE
Taking a harder line on blood transfusions

Hospitals trying to zero in on the key factors that put patients at risk for blood transfusions might start by looking within. "One of the biggest risks being transfused in the US is which doors you happen to walk through on the day of surgery," anesthesiologist Timothy Hannon, MD, MBA, said in a recent G-2 Reports audioconference on blood management. Even within a group of surgeons or anesthesiologists, he said, you see considerable variation in blood use, with some ordering quite a bit and others very little.

In fact, he told College of American Pathologists (CAP) TODAY, a hospital is a "quantifiable risk factor for transfusion" for all patients, whether or not they have surgery. That's because the hospital tends to have a "culture" for how it approaches transfusion therapy, says Dr. Hannon, medical director of the blood management program at St. Vincent Hospital, Indianapolis, and president and CEO of Strategic Healthcare Group, which offers, among other services, blood management consultation.

It has been known for some time that a restrictive transfusion strategy may be better for adult patients than a liberal strategy. Now, a new study has found that a restrictive strategy (hemoglobin threshold of 7 g/dL) for red-cell transfusion) can decrease transfusion requirements without increasing adverse outcomes in stable, critically ill children (Lacroix 2007). The mounting more-may-be-less data is why some hospitals are implementing conservative, evidence-based blood management programs.

Lacroix J, et al. Transfusion strategies for patients in pediatric intensive care units. *N Engl J Med*. 2007;356:1609-1619

Medical Mystery Tour
Nausea and Vomiting in Pregnancy

Case 1. MTB is a 24 y/o G1P0 at 10 weeks by her dates who presents to her first prenatal visit complaining of morning sickness. Her symptoms are not incapacitating, but she would like to feel better. She has tried various herbal teas without much relief. Your most useful recommendation at this initial visit would be:

- reassurance, small frequent intake, pyridoxine (vitamin B-6)
- prescribe a cholinomimetic agent (e.g., metoclopramide)
- prescribe a 5-HT-3 receptor inhibitor (e.g., ondansetron)
- clear liquid diet and bismuth subsalicylate (Pepto-Bismol)

Case 2. HB is a 30 y/o G3P2 at 9 weeks by her dates who presents for her first prenatal visit complaining of nausea with vomiting that lasts pretty much all day, but she is able to keep some food down. She says this has occurred with each of her pregnancies, but this time it is especially troublesome. She has had a small amount of spotting but no cramping. She appears to be well hydrated. Your initial work up at this time should include:

- complete metabolic panel, thyroid functions, amylase and lipase
- electrolytes, alanine aminotransferase, pelvic ultrasound
- upper abdominal ultrasound, H.pylori antigen testing, stool guiac testing
- no laboratory studies are indicated at this time

Case 3. EP is a 19 y/o G1P0 at 11 weeks by her dates who presents to the emergency department complaining of severe nausea and vomiting. She is wretching, appears ill, and is only able to produce a small amount of concentrated urine that is strongly positive for ketones. Your initial management should include:

- oral hydration, mental health consult
- intravenous hydration, admit for parenteral alimentation
- intravenous hydration, nasogastric tube, H2-blocker drip
- intravenous hydration, parenteral anti-emetics

What do you think? Stay tuned for the discussion in next month's CCC Corner

Midwives Corner
Lisa Allee, CNM, Chinle
Midwifery's approach to pre-labor SROM supported by professional organization's journal

Morwitz and Jordan present a review of the literature on pre-labor rupture of membranes at term. Most significantly, they point out some of the flaws in the TERMPROM study by Hannah et al. The biggest problem was that there was no control of the number of vaginal exams, which have been shown to be directly correlated with increased risk of infection by Hannah et al. and others. Speculation has been made that if the number of vaginal exams had been limited in the study pool, the results may have been different. Another problem has to do with GBS-positive management being very different and inconsistent during the study time period as compared to today. The authors' concluding statements support the time-honored midwifery practice of having options in the management of pre-labor SROM tailored to the individual patient and setting and the integral role played by the woman herself in the decision making process.

Two practices supported by current research findings should be incorporated into midwifery care of women with term PROM. The first is to strictly limit vaginal examinations. There is considerable evidence documenting the increased risk of perinatal infection related to digital vaginal examination, yet little change has occurred in this aspect of practice. Despite ACOG's recommendation that vaginal examination should be

deferred during the initial evaluation, doing a "baseline vaginal exam" is common practice. Requiring vaginal examinations at set intervals to prove labor progression is another entrenched habit. A speculum examination to determine initial cervical status is sufficient in most cases, and digital examinations should be done only when the information is needed to make management decisions. The second practice is to consistently provide information about the options of expectant management and immediate induction to women with term PROM, and to involve them in the decision-making process. This is congruent with midwifery hallmarks and philosophy of care. In addition, it is explicitly supported by Cochrane reviewers and the TERMPROM researchers.

In an editorial accompanying the publication of the term PROM study, Duff stated his view that the practice of expectant management should be abandoned. An unquestioning acceptance of this view is not justified based on available evidence. Women should be fully informed on the risks and benefits of induction and expectant management, and offered both options. Midwives should strive to remain champions of a care approach that involves women in decision making and supports the value of nonintervention.'

Editorial Comment by Lisa Allee, CNM

I couldn't have said it better myself. But I will add my two cents, too. I think the ACOG statement that induction should be started immediately upon SROM is over interventionist, not evidence based, and disrespectful of the inherent wisdom and intelligence of women's bodies and minds. I encourage midwives to feel supported by our professional organization's journal in continuing evidence-based approaches to pre-labor SROM by offering options of induction or awaiting spontaneous labor. Most importantly keep your fingers out of there; the vaginal exam does not make much difference; her cervix is what is and her labor goes as it goes no matter if we check the cervix or not, and there are other ways to tell how her labor is progressing: tune in and labor sit.

Reference: Online

Navajo News
Jean Howe, Chinle
The evolution of management of Actinomyces on a Pap report

Actinomyces is an anaerobic Gram-positive bacterium that may be found as normal flora in the mouth and GI tract. It can also colonize the female genital tract and, in rare cases, cause pelvic abscesses. Such abscesses tend to be slow-growing, are typically described as "woody," and may be mistaken for a neoplasm. Actinomyces grows preferentially on foreign bodies such as the intrauterine device (IUD), and the likelihood of colonization increases with duration of use. For women using an IUD, the finding of actinomyces on a pap report can be a common and perplexing challenge, especially as the vast majority will be without symptoms and at very low risk for serious disease.

I am intrigued by the management of actinomyces because it also serves as a reminder about the evolution of medical knowledge and the importance of common sense in clinical practice. Perhaps I'm revealing my age but, when I was in training, a report of actinomyces on a pap inevitably led to a recall of the patient for removal of her IUD. This caused a great deal of contraceptive consternation and an urgent search for an acceptable alternative method. Soon after my training was completed it became more acceptable to leave the IUD in situ, but only if a relatively long course of penicillin-based antibiotics was administered. More recently, awareness is growing that it is no longer necessary to remove the IUD or treat in most cases.

A recent review article by Westhoff in the journal *Contraception* provides useful background information. Studies of the Pap smear results of IUD users reported a prevalence of 0 to 31% of actinomyces-like-organisms noted on pap, with an average of 7%. (For women without IUDs the rate of positive paps remained close to 0%). Interestingly, the review also states that, in studies of women with actinomyces pelvic abscesses, only half of pap tests performed were positive for the bacterium. Given the lack of specificity of this test result, the author endorses the position of the UK Faculty of Family Planning and the Planned Parenthood Federation of America that such patients can continue IUD use. They should be informed of the potential risk of subsequent pelvic abscess, which is not precisely known but is believed to be substantially less than 1/1000. This review also notes the finding that the rate of actinomyces-positive pap results is lower with levonorgestrel IUDs than with Paraguard IUDs.

Both UpToDate and ACOG provide a similar perspective. UpToDate recommends that the patient be notified of the finding and examined. In the absence of symptoms, the finding of actinomyces likely represents colonization, and IUD removal or antibiotic treatment is unnecessary. The patient should be given instructions to seek medical care if symptoms of PID are noted. If she is symptomatic, then removal of the IUD would be an important part of management due to the heightened growth of actinomyces on foreign bodies. This position is also endorsed by the ACOG Practice Bulletin on IUDs, published in 2005, which states that "The options for management of asymptomatic IUD users with actinomyces on Pap test are expectant management, an extended course of oral antibiotics, removal of the IUD, and both antibiotic use and IUD removal."

A recent CME article of IUD use in *Contemporary Ob/Gyn* by IHS alumni Tony Ogburn and Eve Espey seeks to dispel many misconceptions about IUD use. Amongst other helpful recommendations, they make note of the changes to the Paraguard package insert, which endorses IUD use in nulliparous women. This same revision removed genital actinomycosis from the list of contraindications to Paraguard use.

This evolution of recommended medical practice, from a very conservative management plan that undoubtedly increased the risk of unwanted pregnancy for some women, to a more practical and evidence-based approach encouraging symptom evaluation and ongoing IUD use for almost all women, is refreshing.

Reference: Online

Oklahoma Perspective
Greggory Woitte – Hastings Indian Medical Center
Preconception Health of Women Delivering Live-Born Infants — Oklahoma, 2000-2003

The U.S. Public Health Service recommends that all women of childbearing age consume >400 µg of folic acid daily through either supplementation or fortified foods. CDC recommends offering, as a component of maternity care, one pre-pregnancy visit to a health care provider for women planning pregnancy to enable women to receive risk assessment, health education, and specific interventions to address identified risks before conception. Analysis of data collected from women in Oklahoma during 2000-2003 from the Pregnancy Risk Assessment Monitoring System (PRAMS) indicated that 21.5 percent of women with a recent live birth were not aware of folic acid benefits before they became pregnant, 73.5 percent did not consume multivitamins at least four times per week during the month before pregnancy, and 84.8 percent did not receive preconception counseling from a health-care provider. Although pre-pregnancy awareness of the benefits of taking vitamins with folic acid in the prevention of some birth defects was high among Oklahoma women with a recent live birth, actual consumption of multivitamins during the month before pregnancy was low. Promoting preconception health of women is a key public health strategy in the US to decrease morbidity and mortality associated with negative maternal and infant outcomes. Increased folic acid consumption before conception and during the first trimester of pregnancy can reduce the incidence of neural tube defects by 50-70 percent.

Editorial Comment
Greggory Woitte, Hastings Indian Medical Center

I am sure that most of your patients are similar to mine in that your first visit with them is after they have become pregnant. They show up at the clinic for a confirmatory pregnancy test, to schedule their first prenatal visit and to get started on prenatal vitamins (or, as I am frequently seeing, to start Flintstones vitamins). However, as I am sure you are aware, by the time the patient reaches our doorstep, we have missed a very important part of the pregnancy that we may have had some dramatic affect upon.

Between 2000 and 2003, the state of Oklahoma developed and administered a preconception survey (see above). They found that 84.8% of women did not have any preconception counseling by a provider. Some 21.5% of women did not know about the benefits of preconception folic acid, and equally disturbing was the fact that 73.5% did not take vitamins before trying to become pregnant.

In accordance with the ACOG Committee Opinion No. 313, patients who are in the reproductive ages should be questioned about the possibility of becoming pregnant, especially if they are not on contraception. Women should be encouraged to formulate a reproductive health plan. We, as practitioners of women's health, should be encouraging women to take steps to get as healthy as possible at every visit. This is especially important in women of reproductive age where we have the opportunity to provide education regarding the benefits to the fetus, as well as to identify patients at high risk for adverse pregnancy outcomes.

We also need to remind our colleagues from other disciplines of medicine to ask their patients about potentially becoming pregnant and refer those who may be in need of pre-conceptional counseling or those in need of contraceptive counseling.

Reference: Online

Perinatology Picks
George Gilson, MFM, ANMC
Anemia in Pregnancy Briefly: The Common to the Unusual – Including IV Therapy

Background. Anemia is very common in pregnant women, and 99% of such women (in non-malarious areas) are iron deficient. Iron deficiency is seen frequently because of prior menstrual losses, prior pregnancy related losses, and nutritional factors. As a result of a dilutional effect, the normal hematocrit for third trimester pregnant women at sea level is 33±3 %. Women with a hematocrit over 30% should not be considered anemic.

Diagnosis: Sophisticated studies are usually not needed in the work-up of a woman with pregnancy associated anemia. The CBC that revealed the low hemoglobin/hematocrit will usually also reveal a low MCV (microcytosis), a low MCH (hypochromia), and an increased RDW (anisocytosis), characteristic of iron deficiency. Women with mild (or acute) anemia may not yet have these typical red cell morphologic changes, however. The most sensitive and specific test for iron deficiency during pregnancy (even prior to overt anemia) is a low serum ferritin, which reflects total body iron stores. Normal values are 40-200 ng/mL. Serum iron, TIBC (transferrin), and the per cent transferrin saturation, are all less accurate indices during pregnancy. Hemoglobin electrophoresis should be reserved for women who, on the basis of their ethnicity or family history, are suspected of having a hereditary hemoglobinopathy (e.g., thalassemia, sickle cell disease, etc.).

Treatment: *oral iron therapy*. Most women with iron deficiency can be treated with oral iron. Ferrous sulfate 325 mg contains 57 mg of elemental iron, and is the most efficient form. The evidence is unclear as to the value of adding ascorbic acid. Oral iron commonly causes gastrointestinal symptoms, however. These are usually dose dependent, but may be severe enough that women will not, or cannot, adhere

to their regimen, even with stool softeners and/or acid reducing agents. Slow-release iron formulations may prevent gastric irritation, but not constipation, and are significantly more expensive. Stools will become black after taking iron, and asking about stool color is a good way to check adherence to therapy. To see if the patient is responding to (or taking) therapy, a reticulocyte count may be obtained seven days after starting treatment, but a rise in the hemoglobin or hematocrit will usually not occur until 3-4 weeks. It may also be prudent to prescribe supplemental folic acid, at least 1 mg daily, as this nutrient will also commonly be deficient in women who are iron deficient.

Treatment: parenteral iron therapy. Anemia may become severe enough to cause symptoms (fatigue, tachycardia, etc.). Since acute post partum hemorrhage is such a common event (approximately 5 per cent of births), this has the potential to becoming a life-threatening condition. Women with a known placenta previa are at special risk. Fetal growth and oxygenation will usually not be affected until the maternal hemoglobin is less than 5 g/mL, however. In such symptomatic or worrisome cases, where adherence is a limiting factor, parenteral iron therapy may be considered.

There are three parenteral iron therapy options available in the US at the present time: iron dextran, ferric gluconate, and iron sucrose. Iron dextran is no longer widely used because of its significant risk of anaphylaxis (0.6%), or other hypersensitivity reactions (0.2-3%). It is also usually given intramuscularly, and is painful, can cause skin discoloration, and is unpredictably absorbed. Ferric gluconate and iron sucrose are both given intravenously, and are safe and effective alternatives, although they are somewhat more expensive. Iron sucrose has the lowest rate of serious adverse reactions (anaphylaxis 0.002%, hypersensitivity 0.005%), and so is our drug of choice.

Our current protocol is to give iron sucrose 200 mg in 100 mL of normal saline IV over 1 hour. A test dose (25 mg IV slow push) is not necessary, but may be considered at the discretion of the provider. The woman's exact dose can be calculated, taking into account her weight and the current and desired hematocrit, but, since most women who will be receiving the drug are severely anemic, we have elected to empirically give 5 doses of 200 mg (total of 1000 mg) at 24-48 hour intervals. The patient should be observed and vital signs and fetal heart rate documented prior to her discharge. The hemoglobin or hematocrit may be repeated seven days after the last dose, as hematopoeisis proceeds rapidly after intravenous iron administration. If you wish to see if total iron stores have been replenished, a serum ferritin may provide guidance, and a second course of iron sucrose considered.

In the rare event of a serious adverse reaction, the infusion should be stopped, the patient hydrated with normal saline, and preparations for possible respiratory support (endotracheal intubation) initiated. The following drugs should be administered: epinephrine 0.3-0.5 of 1:1000 SQ every 5 minutes, diphenhydramine 50 mg IV, and methylprenisolone 125 mg IV.

Reference: Online

STD Corner

Lori de Ravello, National IHS STD Program

Updated Screening for Chlamydial Infection Recommendations, USPSTF

- The U.S. Preventive Services Task Force (USPSTF) recommends screening for chlamydial infection for all sexually active non-pregnant young women age 24 and younger and for older non-pregnant women who are at increased risk. This is a grade A Recommendation.
- The USPSTF recommends screening for chlamydial infection for all pregnant women age 24 and younger and for older pregnant women who are at increased risk. This is a grade B Recommendation.
- The USPSTF recommends against routinely providing screening for chlamydial infection for women age 25 and older, whether or not they are pregnant, if they are not at increased risk. This is a grade C Recommendation.
- The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of screening for chlamydial infection for men. This is a grade I Statement.

Go to ***http://www.ahrq.gov/clinic/uspstf/uspschlm.htm***

Barbara Stillwater

Alaska State Diabetes Program

(How) can we prevent type 2 diabetes?

Our knowledge base in this field is still quite rudimentary, and we have no information about truly long-term (i.e., for decades) prevention of type 2 diabetes. Type 2 diabetes is a progressive disease. It develops over years as a result of declining pancreatic ß-cell compensation for chronic and often worsening insulin resistance. Preventing type 2 diabetes requires modification of the underlying disease biology to slow, stop, or reverse the decline in ß-cell compensation. Data from six randomized trials reveal several interventions that reduce the number of high-risk people who develop diabetes during relatively short periods of treatment. Interventions that reduce body fat or that mitigate the effect of excess fat to cause insulin resistance provide the greatest risk reduction and the best evidence for real disease modification. At least two studies indicate that disease modification is possible soon after glucose levels enter the diabetes range. These findings, combined with the fact that falling ß-cell compensation leads to rising glycemia, provide a rationale for an intervention strategy that begins with lifestyle modification and progresses to pharmacological therapy aimed at reducing insulin resistance if lifestyle approaches fail to prevent glucose from

rising to the diabetes range. Our knowledge base in this field is still quite rudimentary, and we have no information about truly long-term (i.e., for decades) prevention of type 2 diabetes. Even for the short to intermediate term, additional work is needed to determine optimal application of the general strategy described above, to examine combination approaches to prevention, and to test new interventions as they become available. Such work should focus on disease modification, not just cases of diabetes, as a major outcome.

Reference: Online

Women's Health Headlines
Carolyn Aoyama, HQE
Why do Native American women have the poorest 5-year survival rate for breast cancer?

Encourage American Indian/Alaska Native women to join the Sister Study today! The Sister Study needs your help.

- So far, less than 500 AI/AN women have enrolled, out of a total of 37,000, in the Sister Study
- Breast cancer is the 2nd leading cause of cancer death among AI/AN women.
- Their 5-year survival rate is lower than that of white women.
- Scientists have very little information on cancer histories in American Indian/Alaska Native communities.

Eligibility criteria include the following:

- Between 35 and 74 years old
- AND the patient has never had breast cancer
- AND the patient lives in the US or Puerto Rico
- AND the patient (living, deceased), is a blood relative and had breast cancer.

Go to: *https://sisterstudy.niehs.nih.gov/webscreener/DisplayPage.asp?_PageNumber=1*

Pathways Into Health

Clinical Laboratory Science Program

What is Pathways Into Health?

Pathways Into Health is a unique and innovative health Sciences professional education program focused on the education needs of American Indian and Alaska Native students and the health care needs of American Indians and Alaska Native communities. Pathways Into Health is a growing collaboration between Tribes, Tribal organizations, Tribal colleges, the Indian Health Service. Universities and other organizations.

Contacting Ciciley Littlewolf is the best way to answer your questions and review what is required for the program.
Contact: Ciciley.Littlewolf@usd.edu or call 605-677-5167

Visit our website @ www.pathwaysintohealth.org

What is the CLS Program?

Clinical Laboratory Scientists (CLS), sometimes referred to as Medical Technologists, are key members of the health care team. They are responsible for the clinical laboratory testing which provides the physician with the necessary information to make an accurate diagnosis.

The medical field is currently experiencing a shortage of these CLS professionals. This shortage promises a bright future for qualified individuals in a fascinating field.

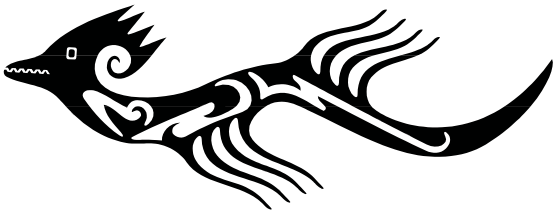
Now what?

The program is flexible enough to meet an individual's unique circumstances, tailored to meet academic requirements, and offers a convenient schedule! If you are interested in medicine and the sciences, it may just what you have been looking for!

Electronic Subscription Available

You can subscribe to *The Provider* electronically. Any reader can now request that he or she be notified by e-mail when the latest issue of *The Provider* is available at the Clinical Support Center website (*http://www.ihs.gov/MedicalPrograms/ClinicalSupportCenter/*). To start your electronic subscription, simply go to *The Provider* website (*http://www.ihs.gov/publicinfo/publications/healthprovider/provider.asp*) and complete the subscription form. This address can easily be reached from the Clinical Support Center website by clicking the "Publications" link and then clicking the "How To Subscribe" link. You are encouraged to try downloading the current issue to see how well this works at your site.

If you also want to discontinue your hard copy subscription of the newsletter, please contact us by e-mail at *the.provider@ihs.gov*. Your name will be flagged telling us not to send a hard copy to you. Since the same list is often used to send other vital information to you, you will not be dropped from our mailing list. You may reactivate your hard copy subscription at any time.



Change of Address or Request for New Subscription Form

Name _____ **Job Title** _____

Address _____

City/State/Zip _____

Worksite: ☐ **IHS** ☐ **Tribal** ☐ **Urban Indian** ☐ **Other**

Service Unit (if applicable) _____ **Last Four Didgets of SSN** _____

Check one: ☐ **New Subscription** ☐ **Change of address**

If change of address, please include old address, below, or attach address label.

Old Address _____

THE IHS PRIMARY CARE PROVIDER

A journal for health professionals working with American Indians and Alaska Natives

THE IHS PROVIDER is published monthly by the Indian Health Service Clinical Support Center (CSC). Telephone: (602) 364-7777; fax: (602) 364-7788; e-mail: *the.provider@ihs.gov.* Previous issues of THE PROVIDER (beginning with the December 1994 issue) can be found on the CSC Internet home page *(http://www.ihs.gov/PublicInfo/Publications/HealthProvider/Provider.asp)*.

Wesley J. Picciotti, MPA .....Director, CSC
John F. Saari, MD .....Editor
E.Y. Hooper, MD, MPH.....Contributing Editor
Cheryl Begay.....Production Assistant
Theodora R. Bradley, RN, MPH .....Nursing Consultant
Erma J. Casuse, CDA .....Dental Assisting Training Coordinator
Edward J. Stein, PharmD .....Pharmacy Consultant

Opinions expressed in articles are those of the authors and do not necessarily reflect those of the Indian Health Service or the Editors.

Circulation: The PROVIDER (ISSN 1063-4398) is distributed to more than 6,000 health care providers working for the IHS and tribal health programs, to medical schools throughout the country, and to health professionals working with or interested in American Indian and Alaska Native health care. If you would like to receive a copy, send your name, address, professional title, and place of employment to the address listed below.

Publication of articles: Manuscripts, comments, and letters to the editor are welcome. Items submitted for publication should be no longer than 3000 words in length, typed, double-spaced, and conform to manuscript standards. PC-compatible word processor files are preferred. Manuscripts may be received via e-mail.

Authors should submit at least one hard copy with each electronic copy. References should be included. All manuscripts are subject to editorial and peer review. Responsibility for obtaining permission from appropriate tribal authorities and Area Publications Committees to publish manuscripts rests with the author. For those who would like more information, a packet entitled "Information for Authors" is available by contacting the CSC at the address below or on our website at www.csc.ihs.gov.

Dept. of Health and Human Services
Indian Health Service
Clinical Support Center
Two Renaissance Square, Suite 780
40 North Central Avenue
Phoenix, Arizona 85004

PRESORTED STANDARD
POSTAGE AND FEES PAID
U.S. DEPT. OF HEALTH & HUMAN SERVICES
PHOENIX, AZ
PERMIT NO. 5691

CHANGE SERVICE REQUESTED

_____

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE $300